

# ABBREVIATIONS, ACRONYMS, AND GLOSSARY

**Absorbed dose** -- the energy imparted to matter by ionizing radiation per unit mass of irradiated material at the place of interest in that material. The unit is rad or gray (1 rad = 0.01 gray).

**ACBM** -- asbestos-containing building material.

**ACHP** -- see Advisory Council on Historic Preservation.

**ACM** -- asbestos-containing material; a material with one percent or more asbestos.

**Acquired land** -- land originally purchased by DOE or its predecessors. In contrast, see "other land" and "withdrawn land."

**Advisory Council on Historic Preservation** -- the Federal agency responsible for promulgating regulations for the protection and preservation of historic properties (see separately).

**AEC** -- see Atomic Energy Commission.

**AHERA** -- see Asbestos Hazard Emergency Response Act.

**ALARA** -- see As Low As Reasonably Achievable.

**Alpha emitter** -- an emitter of alpha particles, which are the heaviest and most highly ionizing types of radiation. Alpha particles can travel only a few centimeters in air at less than 1/10 the speed of light and can be stopped by a piece of paper or the skin's surface. They give up all their energy when colliding and are the most biologically damaging when inhaled or ingested.

**As Low As Reasonably Achievable (ALARA)** -- a phrase (acronym) used to describe an approach to radiation protection to control or manage exposures (both individual and collective to the work force and the general public) and releases of radioactive material to the environment as low as social, technical, economic, practical,

and public policy considerations permit. ALARA is not a dose limit but rather a process that has as its objective the attainment of dose levels as far below the applicable limits as practicable.

**Asbestos Hazard Emergency Response Act** -- enacted in 1986 by Congress, amending TSCA (see separately), to regulate the inspection of all schools for the presence of asbestos, implementation of response actions, and establishment of operations and maintenance and training programs.

**Asbestos School Hazard Abatement Reauthorization Act** -- enacted in 1990 by Congress, amending TSCA (see separately), to extend AHERA (see separately) regulations on training and accreditation to persons performing asbestos work on public and commercial buildings.

**ASHARA** -- see Asbestos School Hazard Abatement Reauthorization Act.

**ASTM** -- American Society for Testing and Materials; a private organization based in Philadelphia, Pennsylvania that establishes standards.

**Atomic Energy Commission** -- a predecessor agency to DOE.

**Beta emitter** -- an emitter of beta particles. Beta particles are much lighter than alpha particles and less ionizing but can travel several meters in air at about one half the speed of light. They can pass through a sheet of paper but may be stopped by glass. Beta radiation can cause skin burns but is more harmful when deposited internally from inhalation or ingestion.

**BLM** -- see Bureau of Land Management.

## ***Abbreviations, Acronyms, and Glossary***

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**BOC** -- Bureau of Census; an agency of the U.S. Department of Commerce that produces the *Statistical Abstract of the U.S.*

**Bureau of Land Management** -- an agency of the U.S. Department of the Interior responsible for the management of public domain lands (see separately) under the Federal Land Policy and Management Act.

**CAA** -- see Clean Air Act

**Categorical exclusion** -- a category of actions which do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an EA or EIS is required (40 CFR 1508.4). (See Appendices A and B to Subpart D of 10 CFR Part 021 for acceptable categorical exclusions.)

**CEQ** -- see Council on Environmental Quality.

**CERCLA** -- see Comprehensive Environmental Response, Compensation, and Liability Act (also known as "Superfund").

**CERFA** -- see Community Environmental Response Facilitation Act .

**CFR** -- see Code of Federal Regulations.

**Change in service** (of USTs) -- A method of closing a tank so as to allow the tank to be used to store fluids that are not hazardous substances or petroleum products.

**Clean Air Act** -- an act of Congress originally passed in 1950 to control the dirty, particulate-filled air that plagued many industrial cities. The Clean Air Act of 1970 established National Ambient Air Quality Standards and National Emission Standards for Hazardous Air Pollutants.

**Clean Water Act** -- Enacted by Congress to supersede the Federal Water Pollution Control Act in 1972. The Act established discharge limit provisions and water quality standards that provide the foundation for the water pollution control program today.

**Code of Federal Regulations** -- the codification of rules and regulations that have been promulgated by Federal agencies to implement statutory mandates.

**Committed Effective Dose Equivalent** -- the sum of the predicted total dose equivalent to tissue or organ (over a 50-year period after a known internal intake of a radionuclide into the body), each multiplied by the appropriate weighing factor. The units are rem or sievert.

**Community Environmental Response**

**Facilitation Act** -- enacted by Congress in 1992 to amend CERCLA Section 120(h) for identifying parcels of uncontaminated land on Federal real property to be reused by communities and for notifying states of leases of Federal real property.

**Comprehensive Environmental Response, Compensation, and Liability Act**

(CERCLA)("Superfund") -- enacted by Congress in 1980 to provide for the cleanup of sites contaminated with hazardous waste; for response and removal actions in the event of a spill or release of a hazardous substance or petroleum product; and for the reporting of hazardous substances stored, disposed of, or released on Federal facilities.

**Contaminated** -- the quality ascribed to a site that occurs when a substance which, after release into the environment (air, water, or ground) of the site and upon direct or indirect exposure, threatens the safety or health of living organisms. (See Chapter 6 for more explanation.)

**Council on Environmental Quality** -- an office within the Executive Office of the President, created by the National Environmental Policy Act (NEPA) to appraise and make recommendations on the implementation of NEPA, develop and recommend national policies to improve environmental quality, and prepare an annual national environmental quality report.

**Critical habitat** -- an area on which are found physical or biological features that (1) are essential to the conservation of an endangered or threatened species, and (2) may require special management considerations or protection. Critical habitats are listed in 50 CFR Parts 17 and 226.

In addition, DOE NEPA implementing regulations (10 CFR 1021, Subpart D, Appendix B) require that the same considerations given for Federally-listed endangered and threatened species be given for state-listed endangered and threatened species.

**CX** -- see categorical exclusion.

**CWA** -- see Clean Water Act.

**Deed** -- a document transferring title to real estate. Deeds are usually under seal and must be recorded.

**Disposal** (of hazardous substances) -- discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous substance into or on any land or water so that such hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwater (40 CFR 373.4).

**Disposal** (of real property) -- permanent or temporary transfer of DOE control and custody of real property to a third party, who has the right to control, use, or relinquish control and custody of the property.

**EA** -- see environmental assessment.

**Easement** -- the right to use land belonging to another for a specific purpose, with the owner retaining title. For example, such use may be for a road, railroad, pipeline, sidewalk, or utility line. The owner's use is restricted to activities that will not interfere with the right of another to use the easement.

**EBS** -- see environmental baseline survey.

**Effective Dose Equivalent** -- the summation of the products of the dose equivalent received by specified tissues of the body and a tissue-specific weighting factor. This sum is a risk-equivalent value and can be used to estimate the health-effects risk of the exposed individual. The tissue-specific weighting factor represents the fraction of the total health risk resulting from uniform whole-body irradiation that would be contributed by that particular tissue. The effective dose equivalent includes the committed effective dose equivalent (see separately) from internal deposition of radionuclides and the effective dose equivalent due to penetrating radiation from sources external to the body. The units are rem or sievert.

**EH** -- DOE Office of Environment, Safety, and Health.

**EIS** -- see environmental impact statement.

**EM** -- DOE Office of Environmental Management.

**Encumbrance** -- a claim against the property (such as a compliance agreement, easement, lease, mortgage, treaty, or Tribal agreement) which could prevent transfer of ownership. However, a property may be transferred or sold subject to an outstanding claim.

**Environmental assessment** -- a concise public document that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or issue a Finding of No Significant Impact. It includes a brief discussion of the need for the proposal, alternatives, the environmental impacts of the proposal and alternatives, and a listing of the persons and agencies consulted (40 CFR 1508.9).

**Environmental baseline survey** -- an environmental site assessment, originally conducted by a prospective buyer to judge the suitability of a piece of land and liability associated with possession. Now also conducted by a seller to establish the marketability of a piece of land and limit the liability associated with disposal of the land.

**Environmental impact statement** -- the detailed written statement required by NEPA to address the environmental impacts of a "major Federal action significantly affecting the quality of the human environment" (see 40 CFR 1508.11).

**Environmentally sensitive resource** -- examples include a floodplain/wetland, a threatened or endangered species or their habitat, refuge or portion of a flyway for migratory birds, historic property (see separately), sacred site where religious rites or ceremonies are performed, area inhabited by sacred animals or plants, area that includes a Wild and Scenic River designation, ecologically pristine area, or Native traditional subsistence use area.

**E.O.** -- Presidential Executive Order.

**EPA** -- see U.S. Environmental Protection Agency.

**Excess real property** -- real property that has been screened and determined to be no longer required for DOE's needs (also see surplus real property.)

**Facilities Information Management System** -- an interactive complex-wide database operated by FM-20 for providing easy access to information on DOE-owned, DOE-leased, GSA-assigned, and Contractor-leased land, buildings, trailers, structures, and facilities.

**Federal Register** -- a periodical published by the National Archives and Records Administration for the dissemination of official public notices (such as advance notices of proposed rulemaking, interim rules, final rules) of the Federal government.

**FIMS** -- see Facilities Information Management System.

**Finding of No Significant Impact** -- a brief document presenting the reasons why an action will not have a significant effect on the human environment and for which an EIS therefore will not be prepared (40 CFR 1508.13).

**FONSI** -- see Finding of No Significant Impact.

**FM** -- DOE Office of Field Management.

### **Formerly Utilized Sites Remedial Action**

**Program** -- a program to clean up privately owned facilities that were contaminated as a result of past nuclear weapons research and production. Many of these facilities did work for the Manhattan Project.

**FR** -- see Federal Register.

**friable** -- material (usually in the context of asbestos) that can be crumbled with hand pressure (and therefore, in the case of asbestos, is likely to release fibers).

**FUSRAP** -- see Formerly Utilized Sites Remedial Action Program.

**Gamma emitter** -- an emitter of gamma rays. Gamma rays are waves of electromagnetic energy that travel at the speed of light and are very penetrating. Thick walls of concrete or lead are required for shielding against gamma radiation. Gamma radiation is extremely biologically harmful because of its ability to penetrate deep within the body from an external source.

**General Services Administration** -- the agency in the Executive Branch assigned with the responsibility within the Federal government for most property disposals.

**GSA** -- see General Services Administration.

**Hazardous and Solid Waste Amendments --**

enacted 1984 by Congress to amend RCRA. The significant amendments included the Land Disposal Restrictions and the addition of Subtitle I to regulate underground storage tanks.

**Hazardous substances** -- those substances defined as hazardous under CERCLA § 101 (14), which appear in 40 CFR Part 302, Table 302.4. In the context of underground storage tanks, hazardous substances are defined as those listed in 40 CFR 300.5.

**Hazardous wastes** -- a subset of hazardous substances regulated under RCRA and defined in the implementing regulations at 40 CFR 261 Subparts C and D. A hazardous waste may be one that is either identified as exhibiting a hazardous characteristic (Subpart C) or is listed (Subpart D).

**Historic property** -- a building, structure, or site that is already on or is eligible for inclusion on the National Register of Historic Places. Archeological sites and resources can be included.

**HSWA** -- see Hazardous and Solid Waste Amendments.

**ICRP** -- see International Commission on Radiological Protection.

**International Commission on Radiological**

**Protection** -- the international organization that sets guidelines to protect workers and the public against radiation.

**Lease** -- an agreement which gives exclusive possessory interest in the property for a specified time in exchange for payment of rent to the owner.

**License** (for real property) -- a privilege granted to a private party to use or pass over real property for a specific purpose.

**Lower secondary voltage network PCB**

**Transformer** -- a transformer with the following characteristics: a secondary coil rated with a capacity of less than 480 volts, connected in an electrical distribution network, and having a dielectric fluid with a concentration of 500 ppm or more of PCBs. (Also, see PCB Transformer.)

**National Environmental Policy Act** -- enacted by Congress in 1969 to establish a national policy for the environment and to create the Council on Environmental Quality (see separately).

**National Historic Preservation Act** -- enacted by Congress in 1966 to establish the Advisory Council on Historic Preservation, the National Register of Historic Places (see separately), and mandates for Federal agencies to protect and preserve historic properties (see separately).

**National Pollutant Discharge Elimination System**

-- the permitting program under the Clean Water Act for controlling discharges to surface water.

**National Register of Historic Places** -- a register maintained and operated by the National Park Service, U.S. Department of the Interior, for tracking buildings, structures, and sites that are noteworthy for their historic or archeological value in accordance with the National Historic Preservation Act (see separately).

**NEPA** -- see National Environmental Policy Act.

**NEPA document** -- includes an environmental assessment, environmental impact statement (see each separately), Notice of Intent, Finding of No Significant Impact, Record of Decision, or any other document prepared pursuant to a requirement of NEPA or the CEQ Regulation. However, it is used in this guidance document to refer to an environmental assessment or environmental impact statement.

**NHPA** -- see National Historic Preservation Act.

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**NPDES** -- see National Pollution Discharge Elimination System.

**NRC** -- see Nuclear Regulatory Commission.

**NRHP** -- see National Register of Historic Places.

**Nuclear Regulatory Commission** -- the Federal agency that licenses the use of nuclear material and equipment and regulates the safety of nuclear materials and equipment.

**Occupational Safety and Health Administration** -- the part of the U.S. Department of Labor that is responsible for regulating and enforcing worker safety and health standards.

**OSHA** -- see Occupational Safety and Health Administration.

**Other land** -- land that DOE has received through a grant or other vehicle. Approximately 11% of DOE real property is other land.

**Outgrant** -- a property transfer without change of ownership. It provides the right to another to use a property. Examples include easement, lease, license, and permit (see each separately).

**PCB Transformer** -- an electrical transformer with a dielectric fluid containing 500 ppm or more of PCBs (also see lower secondary voltage network PCB Transformer).

**PCBs** -- polychlorinated biphenyls.

**Permit** (for real property) -- a temporary right of use (exclusive or nonexclusive) of real property, usually granted to another Federal agency.

**Personal property** -- generally means movable items, which are not permanently affixed or an integral part of the real property. Archeological artifacts that have been excavated would be considered personal property while artifacts that are still buried are part of the real property (see separately).

**Petroleum products or their derivatives** -- neither defined by CERCLA nor CERFA. However, a practical definition of the term can be adopted from the RCRA implementing regulations. Under the 40 CFR 280.12 definition for a regulated substance, it is "petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60° Fahrenheit and 14.7 pounds per square inch absolute)." Examples are gasoline, diesel, and aviation fuel.

**POTW** -- see publicly owned treatment works.

**Program Secretarial Officer** -- a senior DOE outlay program official, including the Assistant Secretaries for Defense Programs, Energy Efficiency and Renewable Energy, Environmental Management, Fossil Energy, and Nuclear Energy; and the Directors of Civilian Radioactive Waste Management and Energy Research.

**Public domain land** -- land that the United States acquired from another nation by treaty, conquest, or purchase, ownership of which has never left the United States. These lands are generally administered by the Department of the Interior (see also withdrawn land).

**Publicly owned treatment works** -- a waste treatment works owned by a state, tribal, or local government, usually designed to treat domestic sewage or wastewater.

**R** -- see roentgen.

**Rad** -- see radiation absorbed dose.

**Radiation absorbed dose** -- the unit of measurement for the physical absorption of radiation.

**RCRA** -- see Resource Conservation and Recovery Act.

**Real property or real estate** -- land plus anything permanently affixed to the land, including buildings, fences, and the infrastructure and fixtures attached to the building (e.g., plumbing, installed cabinets). Fixtures not attached to the building are known as personal property (e.g., furniture, computers).

**Real property transfer** -- see text box in § 1.2.3.

**Rem** -- see Roentgen equivalent man.

**Reportable quantity** -- a threshold quantity, specified in 40 CFR 302.4 Table 302.4, which if released, spilled, or disposed of, triggers CERCLA reporting requirements.

**Resource Conservation and Recovery Act** -- enacted by Congress in 1976 to govern primarily the treatment, storage, and disposal of hazardous waste from "cradle to grave."

**Roentgen** -- the unit of radiation exposure in air.

**Roentgen equivalent man (Rem)** -- the unit of measurement of the absorbed dose (see separately) from radiation based on biological effects. It is related to the total energy absorbed per unit quantity of tissue or rad (see separately).

**RQ** -- see reportable quantity.

**Sacred object** -- objects that are movable and used in Native American religious rites and ceremonies. Examples include masks, offerings, articles of clothing, and utensils. Such objects are considered personal property and beyond the scope of this guidance document.

**Sacred site** -- habitats of sacred plants and animals and places of Native American religious rites and ceremonies. Sacred sites can include petroglyphs, pictographs, rock carvings, and rock formations that are fixed in the land.

**Safe Drinking Water Act** -- an act passed by Congress in 1975 to protect groundwater and other sources of drinking water. The act

established drinking water standards: primary standards covering maximum concentration levels to protect human health and the environment and secondary standards governing color, taste, smell, and other physical characteristics. The Underground Injection Control (see separately) permit program is one element of the SDWA.

**SDWA** -- see Safe Drinking Water Act.

**Secular equilibrium** -- the condition in which the activities (the mean number of decays per unit time of a radionuclide) of a parent and daughter in a radioactive decay chain are (very nearly) equal. For example, as soon as radon atoms are formed from the decay of radium, they start to decay at a characterized rate. At first, production will exceed decay, and the amount of radon will increase. However, the number of decays will increase, and eventually a state will be reached where decay equals production. This state is known as secular equilibrium.

**SF** -- see Standard Form.

**SFMP** -- see Surplus Facilities Management Program.

**SHPO** -- see State Historic Preservation Officer

**Standard Form** -- a government standard form (e.g., GSA Standard Form 118).

**State Historic Preservation Officer** -- an official of a state, state-designated agency, or state historical society responsible for advising and assisting Federal and state agencies in carrying out their historic preservation responsibilities, conducting surveys of historic properties, maintaining inventories of such properties, developing and implementing statewide historic preservation plans, and administering historic preservation funds.

**Storage** (of hazardous substance) -- holding of hazardous substances for a temporary period, at the end of which the hazardous substance is either used, neutralized, disposed of, or stored elsewhere.

## ***Abbreviations, Acronyms, and Glossary***

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**Surplus Facilities Management Program** -- a DOE program to manage the more than 5100 facilities identified as surplus to the mission of nuclear weapons production and other related activities. Many of these facilities became contaminated with radioactivity or hazardous chemicals as a result of the activities that occurred within or around them.

**Surplus real property** -- excess real property (see separately) that has been screened and determined not to be needed by the Federal government.

**Transfer** (of property) -- see § 1.2.3.

**Transuranic** -- an element (e.g., neptunium) beyond uranium in the periodic table. All transuranic elements are man-made.

**TSCA** -- see Toxic Substances Control Act.

**TSD** -- see treatment, storage, or disposal facility.

**Toxic Substances Control Act** -- enacted by Congress in 1976, to regulate PCBs and amended to regulate asbestos.

**Treatment, storage, or disposal facility** -- a hazardous waste facility regulated under the Resource Conservation and Recovery Act (see separately).

**UIC** -- see Underground Injection Control.

**UMTRA** -- see Uranium Mill Tailings Remedial Action.

**Underground Injection Control** -- a permitting program established under the Safe Drinking Water Act (see separately) to regulate the operation, closure, plugging, and abandonment of underground injection wells.

**Underground storage tank** -- a regulated underground storage tank, as used in this document. A regulated underground storage tank is a tank that is 10% or more beneath the surface and contains a petroleum product or a hazardous substance listed in 40 CFR 300.5.

**Uranium Mill Tailing Remedial Action** -- a program to reduce the hazards posed to the public from uranium mill tailings (sand-like material left over from the separation of uranium from its ore). The program was created by the Uranium Mill Tailings Radiation Control Act of 1978.

**U.S. Environmental Protection Agency** -- the agency in the Executive Branch of the Federal government for enforcing laws and promulgating regulations protecting the environment.

**UST** -- see underground storage tank.

**Withdrawn land** -- public domain land that has been reserved for use by a Federal agency for a specific purpose. Approximately 62% of DOE real property is withdrawn from the public domain.